

## DOES THE MUNICIPALITY HAVE A DIGITAL FOOTPRINT?\*

**Zsolt Czékmann<sup>1</sup>, Balázs Szabó<sup>2</sup>, Gergely Cseh<sup>3</sup>, Evelin Ritó<sup>4</sup>**

<sup>1</sup>PhD., associate professor, <sup>2</sup>professor assistant, <sup>3</sup>professor assistant, <sup>4</sup>PhD-student  
*University of Miskolc, Faculty of Law, Department of Public Administrative Law*

The question posed in the title may seem naive in a society that defines itself as an infocommunication society<sup>1</sup>, yet it is the first step in examining the impact of the digital world on municipalities. In a digital environment, our presence will necessarily leave a mark on your own or others' behavior to shape your digital (or online) self. But what about the local authorities, can they be "self" in this environment, and if so, what kind of mark can they leave? The purpose of this short study is to examine some aspects of the local government's digital presence and answer a question about addressing it, in terms of the Hungarian municipal structure.

To talk about a digital footprint, we first need a subject. We are looking for this subject within the domestic (Hungarian regulatory) framework. The situation is seemingly simple when we are looking for a person, since the concept of self-government<sup>2</sup> is enshrined in the Fundamental Law, according to which "local governments operate in Hungary to manage local public affairs and to exercise local public authority." According to the Fundamental Law, the territory of Hungary is divided into capitals, counties, towns, and villages. The community of the village, the city, the capital, and its districts and the constituents of the county have the right to self-government. We place emphasis on local governments among local governments and note that we do not wish to deal<sup>3</sup> with the conceptual demarcation of the city (municipality) and the local government, because although it would be legally justified, it is of secondary importance to the topic<sup>4</sup>.

If you have the subject, then let's look at the question of "online self," that is, digital identity. "Digital Identity is an online data set that defines personal identity, corporate identity, or other (such as brand) identity, and includes identity, that is, all the identities with it is consistent and with which it does not look consistent. In the case of digital personal identity, social networks are decisive, stakeholder networks in the case of digital corporate identity, i.e., investors, customers, suppliers, employees, the media, and, in this context, social local-global embeddedness".<sup>5</sup> Among the identities defined by the concept, the organizational identity is closest to the municipalities. Municipalities can be easily separated<sup>6</sup> from other organizations and from each other, and we can have problem with contrasting the self- governments with cities in the narrow sense. We have already stated that there is no need for such differentiation

---

\* This research was supported by the project nr. EFOP-3.6.2-16-2017-00007, titled Aspects on the development of intelligent, sustainable and inclusive society: social, technological, innovation networks in employment and digital economy. The project has been supported by the European Union, co-financed by the European Social Fund and the budget of Hungary.

<sup>1</sup> Post-industrial societies where digital or infocommunication tools and applications are - now acting as social shaping forces - called infocommunication or information societies. See BALOGH (2004) p. 45.

<sup>2</sup> Fundamental Law Article 31 (1)

<sup>3</sup> The concept of the city is very complex and all the disciplines or practical aspects of using can be very different. There are simpler, so-called one-component city concepts (eg. legal city concept, statistical city concept), which by their very nature provide simplified definitions, but for practical reasons their use is widespread. KOVÁCS (2002) pp. 140-141.

<sup>4</sup> In the present case, we only examine the fact of the digital appearance, what actresses come from (not yet). .

<sup>5</sup> FEHÉR (2013) p. 125

<sup>6</sup> Starting from the concept of local government.

to the depth of the present study. In our case, therefore, the digital identity of the local government is the data set found in the online space, which can be connected to the local government, which is primarily made up of local socio-economic networks (G2G, G2B, G2C, G2NGO in the system of relations) and, alternatively, its global (local) relationship. These relationship systems and data systems are generating great importance when examining the characteristics of a smart city.

The composition of the digital identity data system basically consists of data shared by the municipality, which is originally the result of the active behavior of the local government, and in general, derives from its e-contact activity<sup>7</sup> and from the content of the local government but shared by others (passive behavior). The online self-image is closely related to the digital footprint, but not the same!<sup>8</sup>

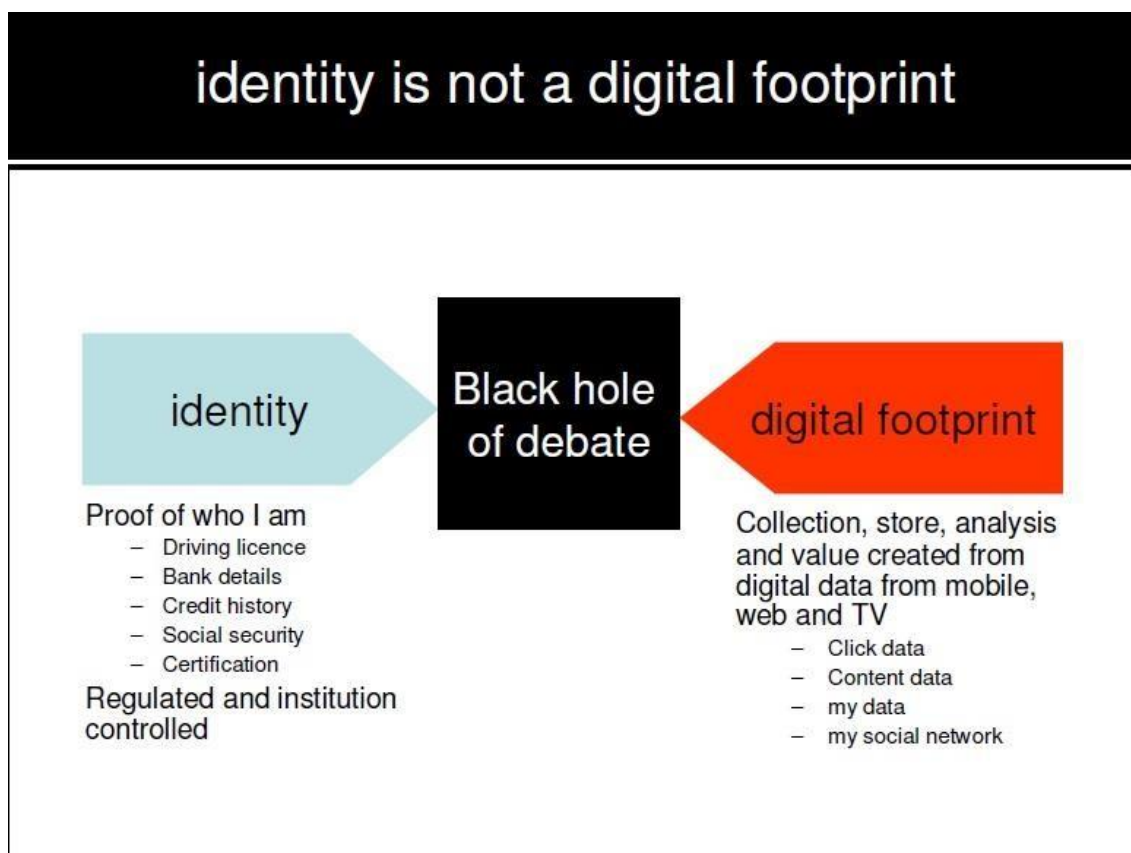


Figure 1.  
Identity is not a digital footprint <sup>9</sup>

<sup>7</sup> E-communication means communication between the government (G), the economic sector (B), the civil sector (C) and non-governmental organizations (NGOs) through the use of infocommunication tools, at least one of which is the municipality. The concepts of e-communication and electronic communication are considered to be synonymous, with the proviso that communication is used in the sense of information theory, so we also include human-machine communication, which is meaningful in automated decision-making. The concept of e-communications consists of three essential components: e-services, e-participation and e-elections. CZÉKMANN (2016) p. 121.

<sup>8</sup> FISH (2013) p. 54.

<sup>9</sup> FISH (2013) p. 50. Identity is not a digital footprint

While digital identity in local governments is (typically) an online presence - based on legal empowerment or engagement - the digital footprint is a much broader, unstructured set of data, and the conclusions that can be drawn from it.

The two main parts of the digital footprint<sup>10</sup> are the active and passive digital footprint. A person's active (primary) digital track record is any content that has been deliberately or intentionally posted on the Internet, primarily for sharing. A passive (secondary) digital footprint is the totality of the data that others have deliberately published to share content with the person concerned or specifically related to it.<sup>11</sup>

The tertiary digital footprint is made up of the "digital crumbs"<sup>12</sup> left behind as a by-product of our online activity in the digital environment.

Primary digital footprints: e-communication means self-government communication and publication, the municipal body makes available various content electronically, which may be published voluntarily, such as in the Frequently Asked Questions section (FAQ), or even on a community site too. It may also be based on statutory disclosure (mandatory)<sup>13</sup>.

For example, the Information Act Article 33 para. (1)<sup>14</sup> establishes the notion of public interest data to be published, which can be copied in digital form to anyone, without identification, without restriction, in a printable manner, and detail, without loss of data or distortion. It must also be made available free of charge for printing, copying, and network transmission. In the case of these services, the addressee's personality is irrelevant, and the local publishing authority is decisive. Rarely is the publisher freely displaying the content along with a formalized minimum of content? These are the results of the active behavior of the local government, which is influenced by it, and besides the compulsory appearance, the volunteer also appears in the Hungarian practice. This is supported by a comprehensive survey<sup>15</sup> conducted by the Ministry of the Interior, in which 39% of the 2645 respondents from the Hungarian self-governments surveyed indicated that they were on a social network. The number of followers of the pages is between 2 and 33 234 and on average 2536 followers. The community presence is mostly about Facebook. The Mayor, the Office, or the Municipality has reported a small number of Twitter (36 mentions) and Instagram accounts (51 mentions)<sup>16</sup>.

---

<sup>10</sup> The concept of a digital footprint refers to the signs and traces that remain after the user's online presence and from which he can deduce his activity. These may include any kind of information: registration on a particular site, emailing (including attachments), uploading and downloading videos, commenting, blogging, etc. The digital footprint thus refers to any information that can be used to identify the user.

<sup>11</sup> SZABÓ O. p. 5.

<sup>12</sup> FISH (2009) p. 4.

<sup>13</sup> TRAUMÜLLER - KRENMAYR (2015) p. 19.

<sup>14</sup> 2011 CXII. Act on Information Self-Determination and Freedom of Information

<sup>15</sup> Monitoring Municipal Developments II. KÖFOP-2.3.4-VEKOP-15 priority project

<sup>16</sup> BUDAI (2017) p. 204.

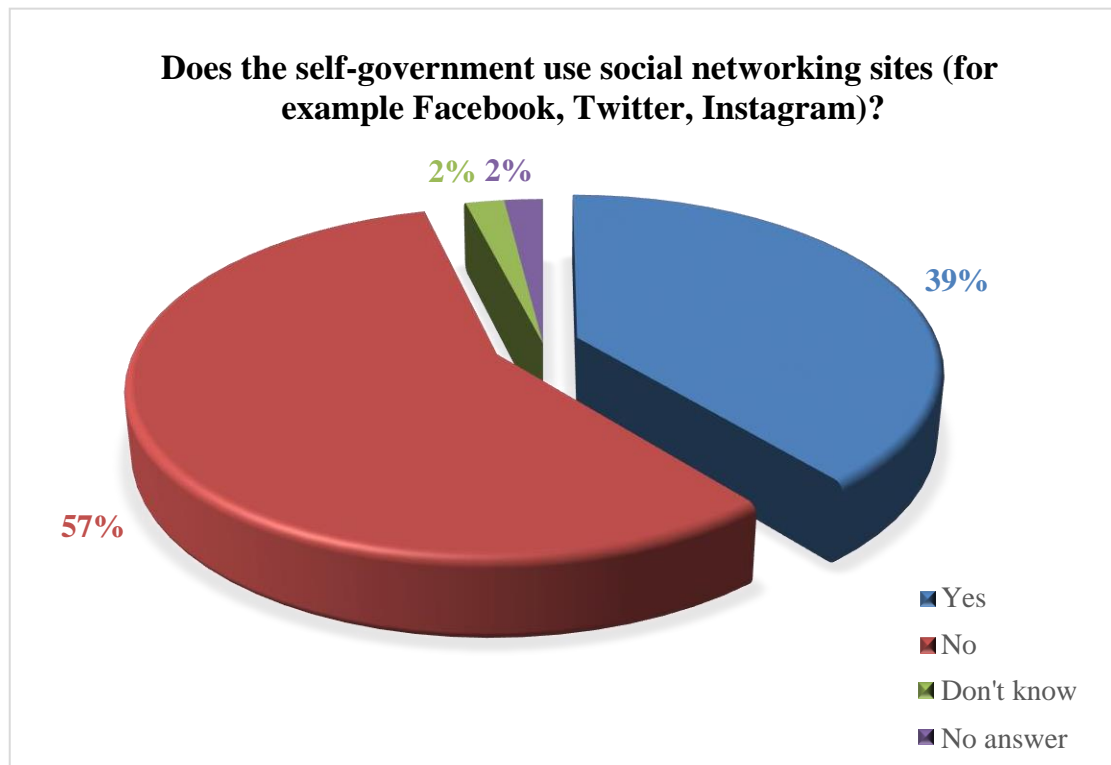


Figure 2.

Does the self-government use social networking sites (for example Facebook, Twitter, Instagram)?<sup>17</sup>

It should be noted that there is little voluntary presence compared to what is expected, but the bigger problem is that 10% of the respondents stated that they did not have a standalone website<sup>18</sup>, although this would be a legal obligation. This response also sheds new light on the need for local government ASPs<sup>19</sup>.

It is almost impossible to estimate to what extent and in what form the local digital media will appear in the content shared by others. The role of traditional (edited) media in this area is prominent, but with the emergence of web 2.0 and the spread of social media, the production of content (and thus the development of digital identity) is becoming more and more massive here.

**Tertiary Digital Footprint:** Includes data from our online purchases, data stored in our email system, credit card purchases, Google searches, or our IP address. These traces and data - each has small value, but which are assembled into patterns - are generally available to online systems, not directly accessible to everyday users.

In analyzing digital footprints, one cannot ignore the fact that one of the main tools in today's information societies is smart tools for use, use and contact. Thanks to the possibilities offered by smartphones, electronic administration is becoming simpler, more efficient and faster for both the state and the municipalities. One of the most effective ways to do this is to use mobile

<sup>17</sup> BUDAI (2017) p. 204.

<sup>18</sup> Find in the same place.

<sup>19</sup> One of the special systems of the ASP system is the municipal portal system, which performs communications, information, informational tasks, presents the settlement, communicates current news and information to the citizens. So this special system can play an important role besides the static websites of many times.

application-based solutions. Smartphone applications can also be seen as new practices in mobile e-government or m-government<sup>20</sup>. Although most smartphone applications have not yet been applied by the local governments, the bodies that have already used them have given positive feedback. The reason for the satisfaction is that, compared to many other communication channels, these "new solutions", such as increasing time and cost efficiency, by reducing (omitting) personal administration, increasing the participation of the client in the procedure, have an extra advantage. the effects of the subordination of the state to the subordinate, increasing the role of the state / local government provider, etc.

Smartphones are equipped with various sensors - such as cameras and GPS transmitters - that allow users to capture real-time information and environment data, not just to access and view them, thus creating a digital footprint. So if you decide on an application-based service for a municipality / public administration, then such digital footprints will be measurable.

From all this, it can be seen that the municipalities have a digital footprint: the significance and the digital presence of that is worth to examine. Our original question goes beyond itself, proving our presumption at the same time, and allowing us to investigate further phenomena at the municipal level that presuppose digital presence, especially e-government and e-democracy issues.

## References:

BALOGH (2004)

BALOGH Zsolt György: Az infokommunikációs jogról

In: Infokommunikáció és Jog I. évf. 2. szám, Dialog Campus, Budapest-Pécs, 2004.

CZÉKMANN (2016)

CZÉKMANN Zsolt: Információs társadalom és elektronikus kormányzat Magyarországon, PhD dolgozat, DOI: 10.14750/ME.2016.027

BUDAI (2009)

BUDAI Balázs Benjámin: Az e-közigazgatás elmélete, Akadémiai, Budapest 2009., DOI: 10.1556/9789630597852

BUDAI (2017)

BUDAI Balázs Benjámin: Települési önkormányzatok az információs tengerben in: PRO PUBLICO BONO – Magyar Közigazgatás, 2017/3, pp. 196–215.

FEHÉR (2013)

FEHÉR Katalin: Vállalati digitális identitás.

In: Horváth Dóra és Bauer András (szerk.): Marketingkommunikáció. Stratégia, új media, fogyasztói részvétel. Budapest: Akadémiai Kiadó. 2013

---

<sup>20</sup> SZABÓ (2018)

FISH (2009)

Tony FISH: My Digital Footprint: a two-sided digital business model where your privacy will be someone else's business!, London, Futuretext, 2009,

KOVÁCS (2002)

KOVÁCS Zoltán: Népeség- és településföldrajz. Budapest, ELTE Eötvös Kiadó 2002,

SZABÓ (2018)

SZABÓ Balázs: Good examples of M-government in Hungary  
Publicationes Miskolcensis 2018/2

SZABÓ O. (2013).

SZABÓ Orsi: A digitálisan megjelenített én - Tudatosság, hitelesség, önértékelés az interneten. Digitális Állampolgárság Az Információs Társadalomban. 2013

[https://www.academia.edu/attachments/46369078/download\\_file?st=MTU1NDQ5OTg1MSw4MC45OC4xMzkuMTk3LDEyNjcyOTg0&s=swp-toolbar](https://www.academia.edu/attachments/46369078/download_file?st=MTU1NDQ5OTg1MSw4MC45OC4xMzkuMTk3LDEyNjcyOTg0&s=swp-toolbar) (letöltve 2019. 04. 05.)

TRAUMÜLLER - KRENMAYR (2015)

Roland TRAUMÜLLER - Andreas KRENMAYR: Citizen Information in E-Government

in: Alexander BALTHASAR, Blaž GOLOB, Hendrik HANSEN, Balázs KÖNIG, Robert MÜLLER-TÖRÖK, Alexander PROSSER (szerk.) Central and Eastern European e|Dem and e|Gov Days 2015: Time for a European Internet? Austrian Computer Society, Bécs, 2015